

Magnetic Noise in Universal Commutator Micromotors

SOV/105-59-1-10/29

magnetic noise can be reached by bevelling the armature slots or the poles by an integral of the tooth pitch. 2) At given main dimensions of the machine, the magnetic noise will be the smaller, the greater the number of armature slots is. In designing machines with little noise, $\frac{z_1}{2p}$ should be chosen ≥ 12 , z_1 being the number of armature teeth. 3) When bevelling the armature slots by an integral of the armature pitch and $\frac{z_1}{2p} \geq 12$, the quantity of the proportion $\frac{b_0}{t_1}$ is of no great importance. b_0 = length of the pole arc, t_1 = the real tooth pitch of the armature. 4) For an armature with an even number of teeth, $\frac{b_0}{t_1}$ should be chosen equal to $n + 0.5$, n being an integral number. There are 7 figures.

SUBMITTED: June 25, 1958

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S/105/60/000/05/25/028
B007/B008

AUTHORS: Andrianov, V.N., Astakhov, N.V., Gubenko, T.P., Kostenko, M.P.,
Larionov, A.N., Lopukhina, Ye.M., Petrov, G.N., Somikhina, G.S.,
Yuferov, F.M., Chilikin, M.G.

TITLE: Yu.S. Chechet, (Deceased)

PERIODICAL: Elektrichestvo, 1960, No. 5, p. 89

TEXT: Muriy Sergeyevich Chechet, Professor at the Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering), scientist and pedagogue, and an expert in the field of electrical micromachines, died on February 26, 1960. He was born on February 2, 1894. He studied at the mekhanicheskiy fakul'tet Kiyevskogo politekhnicheskogo instituta (Department of Mechanics at the Kiev Polytechnic Institute) from 1913 to 1919. From 1919 teaching activity in Odessa and in Moscow. In 1923 he graduated from the elektrotekhnicheskii fakul'tet Moskovskogo vysshego tekhnicheskogo uchilishcha (Department of Electrical Engineering at the Moscow Higher Technical School). He published about 40 scientific studies. From 1931-1942 Director of the kafedra elektricheskikh mashin (Chair for Electrical Machines) at the Moskovskiy institut

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Yu. S. Chechet (Deceased)

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mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (Moscow Institute of the Mechanisation and Electrification of Agriculture). From 1942 until his death he was Professor at the kafedra elektricheskikh mashin Moskovskogo energeticheskogo instituta (Chair for Electrical Machines at the Moscow Institute of Power Engineering). At the same time he directed a chair at the Voenno-inzhenernaya Krasnoznamennaya akademiya im. Kuybysheva (Military "Red Banner" Engineering Academy imeni Kuybyshev) for a number of years. He took his doctor's degree in 1940. He wrote his dissertation on "Theoretical Principles for the Designing of Universal Micromotors" ("Teoreticheskiye osnovy proyektirovaniya universal'nykh mikrovdigateley."). He was a Deputy of the Mossovet (Moscow Soviet of Workers' Deputies) and holder of the Order of Lenin and a number of medals, as well as Chairman of the Section Electrical Machines of the MONITOE. There is 1 figure.

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Card 2/2

TOROPTSEV, Nikolay Demidovich; ASTAKHOV, N.V., red.; LARIONOV, G.Ye.,
tekhn. red.

[Use of a three-phase asynchronous motor in a single-
phase connection with a condenser] Primenenie trekh-
faznogo asinkhronnogo dvigatel'ia v skheme odnofaznogo vklju-
cheniia s kondensatorom. Moskva, Gosenergoizdat, 1963. 36 p.
(Biblioteka elektromonters, no.89) (MIRA 16:8)
(Electric motors, Induction)

ASTAKHOV, Nikolay Vladimirovich, kand. tekhn. nauk, dotsent;
DZHAMALUTDINOV, Ramazan Guseynovich, aspirant

Temperature distribution along the radius of a disc armature
with printed winding. Izv. vys. ucheb. zav.; elektromekh. 8
no.11:1280-1285 '65. (MIRA 19:1)

L 41619-66

ACC NR: AF6013419

SOURCE CODE: UR/0144/65/000/011/1280/1285

AUTHOR: Asakhov, N. V. (Candidate of technical sciences, Docent);
Dzhamalutdinov, R. G. (Aspirant)

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B

ORG: Moscow Power-Engineering Institute (Moskovskiy energeticheskiy institut)

TITLE: Temperature distribution along the radius of a printed-winding disk armature

SOURCE: IVUZ. Elektromekhanika, no. 11, 1965, 1280-1285

TOPIC TAGS: electric motor, temperature distribution, *ELECTRIC ROTATING EQUIPMENT PART*

ABSTRACT: An equation of temperature distribution is set up on the basis of the heat conductance of a body containing internal heat sources. The hottest spots in the armature printed winding are determined. An experimental verification of the formulas included a d-c motor with a 300-mm disk armature run at 2000 rpm;

UDC: 621.313.045.

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L 41619-66

ACC NR: AP6013419

ambient temperature, 20C; outlet-air temperature, 60C. It is found that:
(1) The maximum temperature rise occurs in the middle of the slot portion of the armature winding; (2) With cooling air flowing in the ring airgap, the temperature of the outside end parts of the winding exceeds that of the inside end parts. Experimental and theoretical temperature-distribution curves are in satisfactory agreement. Orig. art. has: 3 figures, 31 formulas, and 2 tables.

SUB CODE: 09 / SUBM DATE: 13Nov64 / ORIG REF: 002

ms
Card 2/2

ACC NR: AT7005786

SOURCE CODE: UR/0000/65/000/000/0100/0106

AUTHORS: Astakhov, N. V. (Candidate of technical sciences; Docent);
Dzhamalutdinov, R. G. (Engineer)

ORG: none

TITLE: A study of heat transfer in an end-type direct-current electric motor with a printed coil on a disk armature and with electromagnetic excitation

SOURCE: Moscow. Energeticheskiy institut. Nauchno-tekhnicheskaya konferentsiya po itogam nauchno-issledovatel'skikh rabot za 1964-1965 gody; sektsiya elektromekhanicheskaya, podseksiya elektricheskikh mashin. Doklady. Moscow, 1965, 100-106

TOPIC TAGS: convective heat transfer, heat transfer coefficient, electric motor, armature, turbulent heat transfer, Reynolds number, Nusselt number, Prandtl number

ABSTRACT: The heat transfer of a disk armature rotating in a plane annular gap in the presence of a tangential turbulent stream of cooling air is studied. The heat transfer coefficient of the disk armature in a plane annular gap is calculated from

$$Q = \alpha S \Delta \theta,$$

where Q are the heating losses in the disk (W); S the heat transfer surface (m^2); $\Delta \theta$ the difference between the temperatures of the heat transfer surface and the cooling medium ($^{\circ}C$); and α the heat transfer coefficient ($W/m^2^{\circ}C$). The coefficient of heat

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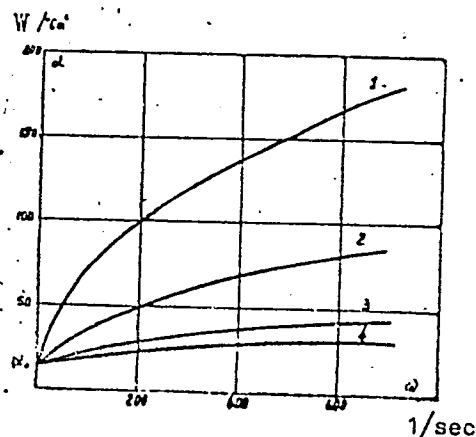
ACC NR: AT7005786

transfer of the armature into the surrounding medium was determined by the calorimetric method. A formula for the heat transfer coefficient as a function of the angular velocity of the armature is obtained as

$$\alpha = 7(1 + 0.3 \sqrt{0.5 \omega}) \cdot W/m^2 \cdot ^\circ C$$

(see Fig. 1).

Fig. 1. Heat transfer coefficient versus angular velocity of armature: 1 - heat transfer in gap; 2 - to surrounding medium; 3 - of housing; 4 - of field coil



The formulas are also expressed in dimensionless parameters. Orig. art. has: 13 formulas, 1 graph, and 1 diagram.

Card 2/2 SUB CODE: 09, 20/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 001

ASTAKHOV, N. G.

Def. at
Tbilisi State U.

- [illegible]

71.

Directions for use of

Candidate's Geographical Belongings

ASTAKHOV, N. Ye.

Gomareti Plateau - Geology, Structural

History of the formation of the relief of the Gomareti plateau. Soob.
AN Gruz. SSR 12, No. 8, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

ASTAKHOV, N.Ye.; MARUASHVILI, L.I.

The Tianeti Basin of the Iora River as an example of morphogenesis during tectonic formation of river valleys. Scob.AN Gruz.SSR 15 no.4:233-238 '54. (MLRA 8:5)

1. Akademiya nauk Gruzinskoy SSR, Institut geografii im. Vakhushti, Tbilisi. Predstavleno deystvitel'nyy chlenom Akademii A.N.Dzhavakhiashvili.

(Iora Valley--Geology) (Geology--Iora Valley)

15-57-4-4283
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4,
pp 34-35 (USSR)

AUTHOR: Astakhov, N. Ye.

TITLE: Revelled Surfaces in the Trialetskiye Gory (Mountains)
(Eastern Georgia) and Their Relationship to the Develop-
ment of the Kura River Valley [O poverkhnostyakh
vyravnivaniya na Trialetskikh gorakh (Vostochnaya
Gruziya) i ikh svyazi s istoriyey formirovaniya doliny
r. Kury]

PERIODICAL: In-ta geogr. im. Vakhushti, 1955, Vol 6, pp 75-85.

ABSTRACT: New data on the distributions of erosion surfaces have
been obtained from studies of the geomorphology of the
Trialetskiye Mountains and the right bank of the Kura
River Valley in its middle course. These surfaces are
relics of a drainage system formed in association with
stages of temporary cessation of rising tectonic
movements. Six such surfaces have been counted between

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15-57-4-4283

Bevelled Surfaces in the Trialetskiye Gory (Cont.)

the crestal zone of the Trialetskiye Mountains to the upper alluvial terraces of the Kura River. These are 1) the summit surface; 2) the Danakhvissko-Tseretskaya poverkhnost' (surface), lying at 1150 m to 1300 m above the present base level, similar in relief to the summit surface but traces of stream activity are better preserved; 3) the Gostibe-Kiburskaya poverkhnost' (surface), showing both slopes of an ancient well-defined valley along the floor of which a small creek flows at the present time; 4) the Tskhaveri-Sakavrissskaya poverkhnost' (surface), a river terrace locally dissected into gullies in the upper part; 5) the Verkhneertatsminda-Zenadrisskaya poverkhnost' (surface), situated 400 m to 500 m above the local base level, the Tedzami River; the surface is covered with a considerable thickness of sandy clay loess with layers of slightly altered rubble and rubbly soil; the surface represents a single continuous river valley; 6) the Ertatsminda-Ezatskaya poverkhnost' (surface) located 100 m to 150 m above the local base level and composed of sandy clay loess alternating with thin-bedded alluvial conglomerates; the surface is a level area dissected by a stream pattern of steep-walled gullies; the erosional terrace of this surface is clearly related to Card 2/3

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Bevelled Surfaces in the Trialetskiye Gory (Cont.)

15-57-4-4283

structural movements. The study of these surfaces leads the author to propose that residual mesas of the older Miocene stream network form the summit and Tsereti-Danakhvisskaya poverkhnost' (surface). After the end of the pre-Akchagyl phase of orogeny, at the beginning of the Pliocene, the Gostibe-Kuburskaya poverkhnost' (surface) was formed. And at the end of the Pliocene and the beginning of the Pleistocene, the Tskhoveri-Sakavrisskaya and Ertatsmindskaya levels were formed. The pre-Baku phase of orogeny led to a considerable uplift of the Tiraletskiye Mountains and marked isolation of the erosional surfaces. At the beginning of Quaternary time, the Trialetskiye folded system was already converted into a high mountainous country with traces of peneplanation at different elevations.

Card 3/3

A. A. P.

ASTAKHOV, N.Ye.; MARUASHVILI, L.I.; CHANGESHVILI, G.Z.

The Alazan-Agrichay intermontane valley in eastern Transcaucasia
as a recent continental geosyncline. Izv.AN SSSR.Ser.geog. no.2:
54-57 Mr-Apr '56. (MLRA 9:8)

1. Institut geografii imeni Vakhushti Akademii nauk Gruzinskoy SSR.
(Transcaucasia--Valleys)

ASTAKHOV, N.Ye.

Geomorphological outline of the southern portion of southern
Georgia. Trudy Inst.geog. AN Gruz.SSR 8:45-79 '57. (MIRA 10:12)
(Georgia--Geology, Structural)

ASTAKHOV, N.Ye.

Geomorphological sketch of northwestern Imeretia and part of
Lechkumi. Trudy Inst. geog. An Gruz. SSR 10:27-48 '58.
(MIRA 12:8)

(Imeretia--Physical geography)
(Lechkumi--Physical geography)

ASTAIKHOV, N.Ye.; VLADIMIROV, L.A.; GOGISHVILI, K.S.; KORDZAKHIYA, M.O.;
MATUASHVILI, L.I.; SOKHADZE, Ye.V.

Physicogeographical characteristics of Upper Imeretia. Trudy Inst.
geog. AN Gruz. SSR 10:155-193 '58. (MIRA 12:8)
(Imeretia--Physical geography)

ASTAKHOV, N.Ye.; LEZHAVA, V.N.

River robbery in the lower reaches of the Tezami River
(Georgian S.S.R.) Trudy Geog.ob-va Gruz.SSR 4:93-99 '59.
(Tezami River:--Geology, Structural) (MIRA 13:1)

ASTAKHOV, N. Ye.

Geomorphology of Upper Racha. Trudy Inst. geog. AN Gruz. SSR 12:57-
71 '59. (MIRA 13:10)
(Racha region--Physical geography)

ASTAKHOV, N.Ye.; VLADIMIROV, I.A.; DONDUA, G.D.; KORDZAKHIA, M.O.;
MARUASHVILI, L.I.; NEMANISHVILI, S.N.; SOKHADZE, Ye.V.; UKLEBA, D.B.,
CHANGASHVILI, G.Z.

Physicogeographical study of the Lechkhumi-Rachinskiy mountain
depression. Trudy Inst. geog. AN Gruz. SSR 12:197-220 '59.

(Georgia--Physical geography)

(MIRA 13:10)

ASTAKHOV, N.Ye.

Geomorphology of the southeastern part of Abkhazia. Trudy Inst.
geog. AN Gruz. SSR 14:19-26 '61. (MIRA 18:5)

ASTAKHOV, N.Ye.

Paleomorphology and the recent tectonic band adjacent to the
Georgian Military Road between the Mukhrani and Truso Valleys.
Trudy Inst. geog. AN Gruz. SSR 17:15-23 '62. (MIRA 16:7)

(Caucasus—Geology, Structural)

ASTAKHOV, N.Ye.

Morphological indications of recent tectonic movements in the surroundings of the Chorokh Delta (Black Sea coast). Soob. AN Gruz. SSR 32 no.2:367-372 '63.
(MIRA 18:1)

1. Institut geografii imeni Vakhushti AN Gruzinskoy SSR. Submitted May 16, 1962.

ASTAKHOV, N.Ye.

Transverse uplifts in the western part of the southern slope of the
main Caucasus Range. Trudy Inst. geog. AN Gruz. SSR 20:39-46 '64.
(MIRA 18:5)

1. T. And, S.S.

1. Generalization from the viewpoint of the recent tectonics
of the central part of the Caucasian Isthmus (in the limits
of the Georgian S.S.R.). Izv. vys. uchen. zav.; geol. i
zem. 6 no. 3: 29-34. Ky 1965. (MIRA 18:10)

1. Institut geografii AN GruzSSR.

ASTAKHOV, O.; RUS'KO, O.

[General chemistry] Zahal'na khimia. Zatverdzheno iak pidruchnyk
dlia pryrodnychkykh fakul'tetiv pedahohichnykh instytutiv. Kyiv,
Radians'ka shkola, 1958. (MIRA 14:8)
(Chemistry)

ACC NR: AF6033256

SOURCE CODE: UR/0109/66/011/010/1793/1798

AUTHOR: Astakhov, O. F.; Samokhvalov, M. M.

ORG: none

TITLE: A varicap with a high maximum-to-minimum capacitance ratio

SOURCE: Radiotekhnika i elektronika, v. 11, no. 10, 1966, 1793-1798

TOPIC TAGS: semiconductor device, impurity band, solid state device, *varicap*, *variable capacitor*

ABSTRACT: The voltcapacitive characteristic was computed of a varicap with a single strongly alloyed contact and with impurity distributed in its base according to the low-e-ax. Computations were made on the basis of the following simplified assumptions: 1) the acceptor concentration in the region is much greater than the concentration of donors in the n-region; the depleted layer is therefore located in the base of the junction. 2) The diffused distribution is approximated by an exponent which changes into the constant concentration of the basic semiconductor. Varicap specimens made of germanium with the resistivity of 30 ohm/cm were manufactured and tested. The varicaps have the following specifications: $C_{max} = 2070$ pf at $v = 0.1v$, $C_{min} = 65$ pf at $v = 5v$, $Q = 10$ at $f = 30$ me, and maximum-to-minimum capacitance ratio = 32. Orig. art. has: 3 formulas and 5 figures.

SUB CODE: 09/ SUBM DATE: 19May65/ ORIG REF: 002
Card 1/1

ASTAKHOV, O.P.

Distr: kElj

Investigation of the diffusion chamber with heated bottom and cooled top. V. K. Lyapunov and O. P. Astakhov (Eng.-Phys. Inst., Moscow). *Trudy*, ~~1936~~ *1936*, No. 3, 30-40. — The temp. field was investigated inside cylindrical chambers, 170 mm in diam., and 70, 100, and 150 mm high, the bottom of which was covered with Li, Pr, Bi, or Sn. In one series of expts., the top was cooled to various temps., the bottom being held at a const. higher temp.; in another series, the top was held at a const. cooler temp., the bottom being heated to various temps. This condition causes stable vapor convection in the chamber. The pressure was detd. at which a stable temp. distribution and a const. type of convection were reached, depending on the top temp. By using a sensitive thermocouple with a mirror galvanometer as temp. indicator, it was found that: (1) at a given height of the chamber with a const. temp. at the top, the stability pressure increases with the temp. of the vapor source (bottom); (2) at equal temps. of the top and bottom, the stability pressure increases with the height of the chamber; (3) at a given height of the chamber and a const. temp. of the top, the stability pressure increases with the temp. of the top (decrease of the temp. gradient in the chamber). E. K. Lyapunov

ASTAKHOV, O.P., inzhener-fizik.

Antiprotens. Nauka i zhizn' 23 no.4:52 Ap '56. (MIRA 9:7)
(Nuclear physics)

ASTAKHOV, O.P., inzhener-fizik.

"Strange" particles. Nauka i zhizn' 23 no.6:54 Je '56.

(MLBA 9:9)

(Elementary particles)

ASTAKHOV, O.P., inzhener-fizik.

For research on nuclear processes. Nauka i zhizn' 23 no.9:52 '56.
(Cloud chamber) (MLRA 9:10)

LYAPIDEVSKIY, V.K.; ASTAKHOV, A.P.

Studying the operation of diffusion cloud chambers at nonatmospheric pressures. Prib. i tekhn. eksp. no.1:43-47 Je-F '57. (MIRA 10:6)

1. Moskovskiy inzhenerno-fizicheskiy institut.
(Cloud chamber)

ASTAKHOV, O.P.

"Strange" particles. Dos. such. fiz. no.5:102-104 '57.
(Particles(Nuclear physics)) (MIRA 16:6)

L 3803-66 EWT(1)/EWT(m)/EPF(c)/T/ENP(t)/ENP(b)/EWA(h) IJP(c) JD/AT

ACCESSION NR: AP5025582

UR/0115/65/000/009/0022/0024 40

681.2.083:621.315.592.081.7 37

44.55
AUTHOR: Astakhov, O. P.; Lobankov, V. V. 44.55

TITLE: A method for measuring the thermoelectric characteristics of semiconductors in the solid and liquid phases at high temperatures 2144

SOURCE: Izmeritel'naya tekhnika, no. 9, 1965, 22-24

TOPIC TAGS: semiconducting material, semiconductor research, thermoelectromotive force

ABSTRACT: The authors propose an improved device for studying the thermoelectric properties of materials in the liquid phase. A schematic cross section of the device is shown in fig. 1 of the Enclosure. The unit is a rectangular high-temperature vacuum furnace with dimensions of 240 x 240 x 600 mm. The housing 1 is of welded stainless steel construction. On the bottom of the furnace 2 are 12 electrical leads 3 for bringing power to the heaters. The air is pumped out of the chamber through fitting 4 and the furnace is filled with a neutral gas through this same fitting. Running water is used for cooling the installation. The main heater 6 is a quartz tube with an inside diameter of 50 mm covered with a bifilar-wound coil
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ACCESSION NR: AP5025582

of Kh25Yu5 alloy or molybdenum wire. The winding covers a length of 300 mm. The substance to be studied is placed in a special vessel 100 mm long which is then put into the central section of the heater. Molybdenum sleeves are submerged in the substance being studied through a ceramic plate along the edge of the vessel. The surfaces of these sleeves (excepting the end) are coated with a thin layer of aluminum. A calibrated thermocouple junction is welded to the bottom of each sleeve. There are two additional bifilar heaters at the ends of the vessel for producing the necessary temperature gradient. Provision is made for continuous control of heating conditions. A semiautomatic potentiometer is used for measuring the thermoelectromotive force between the thermocouples and the semiconductor material. This installation may be used for measuring the thermoelectric characteristics of semiconductors in the solid and liquid phases up to 1500°C. It is found that the vessels for studying the semiconductor material should be made of quartz or especially pure aluminum oxide. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 002

ENCL: 01

OTHER: 000

SUB CODE: 55, EN

Card 2/3

L 3803-66

ACCESSION NR: AP5025582

ENCLOSURE: 01

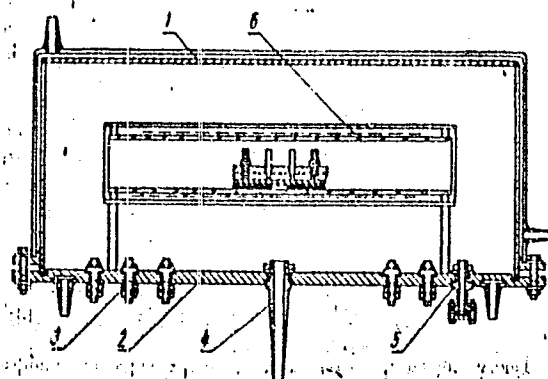


Fig. 1.

CC
Card 3/3

ASTAKHOV, O.P.; PETROV, V.I.; FEDYNSKIY, O.S.

Note on contact thermal resistance in heat transfer to liquid
metals. Atom. energ. 11 no.3:255-257 S '61. (MIRA 14:9)
(Heat--Transmission)

24.5200 (1498)
26.2221

ATLANT
S/089/61/011/003/009/013
B102/B138

AUTHORS: Astakhov, O. P., Petrov, V. I., Fedynskiy, O. S.

TITLE: Thermal contact resistance in the case of heat withdrawal to liquid metals

PERIODICAL: Atomnaya energiya, v. 11, no. 3, 1961, 255-257

TEXT: The heat-transfer theory by Martinelli - Lyon (R. Lyon, Chem. Engng. Progr. 47, no. 2, 75, 1951) has only been confirmed experimentally for the case of large tube diameters. Tube diameters < 10 mm yield values which refute this theory. The discrepancy between experiment and theory is said to be due to the neglect of thermal contact resistance at the interface wall - liquid metal. The present "Letter to the Editor" offers a theoretical study of the effect of this contact resistance R' (in $\text{m}^2 \text{hr}^\circ\text{C/kcal}$) on the relationship between the measured heat-transfer coefficient α and the theoretical heat-transfer coefficient α_0 . $1/\alpha = 1/\alpha_0 + R'$; $\alpha/\alpha_0 = \text{Nu}/\text{Nu}_0 = 1/(1 + R' \lambda_{\text{liq}} \text{Nu}_0/d)$; λ_{liq} = heat conduction coefficient of the liquid metal, d = inner tube diameter; Nu is the Nusselt number; the Card 1/4

Thermal contact resistance in the...

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subscript o denotes the quantities calculated according to the Martinelli - Lyon theory. It follows that experimental results obtained for tube diameter d cannot be used for calculating the heat transfer in another case, where the tube diameter differs from d, since R' depends both on d and the flow rate. The argument is developed to show that agreement between experiment and theory can only be achieved for wide tubes. The quantity $(R'\lambda_{liq}/d)$ is the determinative parameter of heat transfer, which allows for thermal contact potential. Conditions are illustrated by a practical example. For $d = 24$ mm ($Re > 10^4$), $Nu/Nu_o = 0.95$, and the contact resistance value is estimated as $R' = 2.13 \cdot 10^{-6}$ m²hr⁰C/kcal, which is in good agreement with experimental data. If, however, $d = 3$ mm, then $Nu/Nu_o = 0.703$, which means that the divergence from theory is as high as 30 %. To study R' as a function of flow rate, a practical example is again considered: $d = 8.6$ mm (copper tube), $t_{liq,Na} = 240^{\circ}\text{C}$, $Nu = 5.9 + 0.015 Pe^{0.8}$, $Nu/Nu_o = 0.75$, $\lambda_{liq} = 68$ kcal/m.hr⁰C. This yields: $R' = 4.22 \cdot 10^{-5}/Nu_o$ (Pe); $Pe = 200 - 1400$. In this range, R' was only slightly dependent on flow rate w, as illustrated.

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B102/B138

Thermal contact resistance in the...

by curve 1 where $R'(w)$ is shown at $d = \text{const.}$ Curve 2 shows α/α_0 as a function of d taking account of $R'(w)$. Agreement between experiment and theory is found with the Peltier numbers mentioned, i.e., d must be somewhat larger than 20 mm. It is finally suggested for a better confrontation between experiment and theory that experimental results be represented in $Nu^{-1}(Pe)$ diagrams instead of $Nu(Pe)$ diagrams. The dimensionless representation $R'\lambda_{\text{liq}}/d = 1/Nu - 1/Nu_0$ also proved to be expedient. There are 1 figure and 14 references: 8 Soviet and 6 non-Soviet. The four most recent references to English-language publications read as follows: Ref. 9: B. Lubarsky, S. Kaufmann. Review of Experimental Investigations of Liquid Metal Heat Transfer. NACA, Report 1270, 1956; Ref. 12: H. Brown, B. Amstead, B. Short. Trans. ASME, 79, No. 2 (1957); Ref. 13: S. Isakoff, T. Drew. General Discussion on Heat Transfer. London Conference, 1951, p. 405; Ref. 14: M. Jacob. Heat Transfer, v. 11, N.-Y., John Wiley & Sons, Inc. 1957, p. 504.

SUBMITTED: March 12, 1961

Card 3/4

ASTAKHOV, P., inzhener; OVCHINNIKOV, P., inzhener; IL'IN, N., inzhener;
ARTIMOVICH, P., inzhener.

Elevator with automatic control. Muk.-elev.prom. 23 no.7:4-8 J1 '57.
(MLRA 10:9)

1. Moskovskiy mel'nichnyy kombinat No. 4 (for Astakhov).
2. Promzernooproekt (for Il'in, Ovchinnikov, Artimovich).
(Grain elevators) (Ovchinnikov, P., inzhener)

ASTAKHOV, P.

Three years' work of the automatically controlled elevator of the
No.4 Grain-milling Combine in Moscow. Muk.-elev. prom. 26 no.9:
5-6 S '60. (MIRA 13:9)

1.Glavnyy inzhener Moskovskogo mel'kombinata No.4.
(Moscow-- Grain elevators)

ASTAKHOV, P.

Automatic grain elevator. Nauka i zhizn' 27 no.10:49 0 '60.
(MIRA 13:10)

1. Glavnyy inzh. Mel'kombinata No.4, Moskva.
(Moscow--Grain elevators) (Automatic control)

ASTAKHOV, P.

In the Moscow Milling Combine No.4. Muk.-elev. prom. 28 no.1:
4-6 Ja '62. (MIRA 16:7)

1. Moskovskiy mel'nichnyy kombinat No.4.
(Moscow—Flour mills)

ASTAKHOV, P. N. AND ISAAKIAN, OGANEZ NIKOLAEVICH.

Rezul'taty ispytaniy parovoza Em. Moskva, Transzheldorizdat, 1947. 55 p. diags.

Results of Em locomotive testing.

DLC: TJ690.18

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

ASTAKHOV, P. N.

ASTAKHOV, P.N.; KOGOSOV, B.Ye., inzhener, redaktor.

[Experience of progressive engineers in operating locomotives]
Opyt peredovykh mashinistov po vozhdeniiu poezdov. Moskva, Gos.
transp. zhel-dor. izd-vo, 1953. 94 p. (MLRA 7:7)
(Railroads--Trains) (Locomotives)

ASTANOV, P.

^
"The Starting Inertia of Trains. Tr. from the Russians." p. 426, (KOLLEKTEDEBTUDOMANI, SZEMLE, Vol. 3, no. 11/ 12, Nov./ Dec. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

ASTAKHOV, P.V.; EROBINSKIY, V.A., redaktor; KNITROV, P.A., tekhnicheskiy redaktor.

Results of traction and heat engineering tests of the OR
18-01 type 1-5-1 locomotive. Trudy TSNII MPE no. 81:3-175
'54. (MIRA 8:2)

(Locomotives--Testing)

ASTAKHOV, P.N., kandidat tekhnicheskikh nauk; GROMOV, S.A., kandidat
tekhnicheskikh nauk; LAPUSHKIN, S.A., inzhener.

Some conclusions from tests of the TE7 diesel locomotive.

Elek.i tepl.tiaga no.5:6-10 My '57.

(MIRA 10:7)

(Diesel locomotives--Testing)

ASTAKHOV, P.N., kand. tekhn. nauk

Formula used for determining basic resistance of passenger cars.
Vest. TSNIi MPS no. 5:7-12 J1 '58. (MIRA 11:8)
(Railroads--Passenger cars--Testing)

ASTAKHOV, P.N., kand. tekhn. nauk.

Traction and fuel consumption characteristics of the K^{r} steam locomotive during switching operations with the throttle open to a slight degree. Vest. TSNII MPS 17 no.2:55-56 Mr '58. (MIRA 11:4)
(Railroads--Switching) (Locomotives--Performance)

ASTAKHOV, P.N., kand. tekhn. nauk

Basic gondola resistance. Vest. TSNII MPS 18 no.7:21-24 N '59.
(MIRA 13:2)

(Railroads--Freight cars) (Air resistance)

ASTAKHOV, P.N., kand.tekh.nauk

Air drag of box cars. Vest. TSNII MPS 19 no.8:13-15 '60.

(MIRA 13:12)

(Railroads—Freight cars)

ASTAKHOV, P.N., kand.tekhn.nauk; STROMSKIY, P.P., kand.tekhn.nauk

Eliminate unproductive spending of fuel and electric power.
Elek.i tepl.tiaga 5 no.11:26 N '61. (MIRA 14:11)
(Railroads--Frakes)
(Railroads--Cost of operation)

ASTAKHOV, P.N., kand.tekhn.nauk; STROMSKIY, P.P., kand.tekhn.nauk

Analyzing the basic resistance to motion of the rolling stock on
an experimental track circle. Vest.TSNII MPS 21 no.2:27-29
'62. (MIRA 15:4)

(Railroad engineering)

ASTAKHOV, P.N., kand. tekhn. nauk

Reducing the resistance of four-axle freight cars with
roller bearings. Vest. TSNIi MPS 21 no.6:14-16 '62.

(MIRA 15:9)

(Car axles)

(Roller bearings)

ASTAKHOV, P.N., kand. tekhn. nauk

Formula of the basic resistance to motion of passenger cars.
Vest. TSNII MPS 22 no.7:16-17 '63. (MIRA 16:12)

ASTAKHOV, F.N., kand.tekhn.nauk

Resistance due to track curvature. Vest.TSNII MPS 24 no.3:9-12
'65. (MIRA 18:8)

ASTAKHOV, R.Ya.

Depression of pyrites by cyanide in the zinc flotation cycle. TSvet.
met. 36 no.11:83-85 N '63. (MIRA 17:1)

ASTAKHOV, S.

Improved welfare of the workers of the European people's democracies.
V pom. profaktivu 14 no.14:42-47 J1 '53. (MLRA 6:7)
(Europe, Eastern--Social conditions)

ASTAIHOV, S., general-mayor aviatsii, voyennyy letchik pervogo klassa;
GOLYSHEV, M., polkovnik; SHIPILOV, I., polkovnik; NAZAROV, O.,
podpolkovnik

When the flight commander is an instructor. Av.i kosm. 44 no.3:
33-43 '62. (MIRA 15:3)

(Flight training)

HSI HK HUV, S.

ZAKHAROV, S., general-major aviatsii, voyunnyy letchik pervogo klassa

Flight and its evaluation. Av.-i kosm. 47 no.7:51-54 J1 '64.
(MIRA 17:7)

KOROLEV, V., starshiy prepodavatel'; ASTAKHOV, S.

"OKM-A" sprayer mounted on a tractor. Zashch. rast. ot vred.
i bol. 10 no. 12:33-34 '65. (MIRA 19:1)

1. Kafedra mekhanizatsii lesnogo khozyaystva Bryanskogo tekhnologicheskogo instituta (for Korolev). 2. Zaveduyushchiy laboratoriyey Bryanskogo tekhnologicheskogo instituta (for Astakhov).

LEPESHKIN, Vladimir Ivanovich; ASTAKHOV, S.A., red.; LOGINOVA, Ye.I.,
tekhn.red.

[Breeding Angora rabbits] Razvedenie pukhovykh krolikov.
Moskva, Izd-vo M-va sel'.khoz.RSFSR, 1959. 15 p.

(Rabbits)

(MIRA 14:1)

KUSHKOVA, Galina Petrovna; ASTAKHOV, S.A., red.; LOGINOVA, Ye.I.,
tekhn.red.

[Raising young rabbits.] Vyrashchivanie molodniaka krolikov.
Moskva, Izd-vo M-va sel'.khoz.RSFSR, 1959. 19 p.

(Rabbits)

(MIRA 14:1)

KIM, Moisey Mikhaylovich; VAGIN, Yevgeniy Aleksandrovich; ASTAKHOV, S.A.,
red.; SATTANIDI, L.D., tekhn.red.

[Raising rabbits for meat] Vyrashchivanie krolikov na miaso.
Moskva, Izd-vo M-va sel'.khoz.RSFSR, 1959. 21 p.

(Rabbits---Feeding and feeds)

(MIRA 14:1)

VAGIN, Yevgeniy Aleksandrovich; ASTAKHOV, S.A., red.; LOGINOVA, Ye.I.,
tekhn.red.

[Feeds and feeding of rabbits.] Korma i kormlenie krolikov.

Moskva, Izd-vo M-va sel'. khoz.RSFSR, 1959. 23 p.

(Rabbits--Feeding and feeds)

(MIRA 14:1)

KUZNETSOV, Georgiy Alekseyevich; ASTAKHOV, S.A., red.; LOGINOVA, Ye.I.,
tekhn. red.

[Cages for raising rabbits] Kletki dlia sodержaniia krolikov.
Moskva, Izd-vo M-va sel'khoz. RSFSR, 1959. 43 p. (MIRA 14:9)
(Rabbit hutches)

VOLKOV, Mikhail Nikolayevich; ASTAKHCV, S.A., red.; YERSHOVA, T.S.,
tekhn. red.

[Fattening characteristics in swine of various breeds] Ot-
kormochnye kachestva svinei raznykh porod. Moskva, Izd-vo
M-va sel'.khoz. RSFSR, 1959. 33 p. (MIRA 14:12)
(Swine)

ALOV, Aleksandr Samoylovich; ASTAKHOV, S.A., red.; LEVINA, I.G.,
tekhn.red.

[Soil structure as a factor of fertility] Struktura pochvy
kak faktor plodorodiia. Moskva, Izd-vo M-vs sel'.khoz.RSFSR,
1960. 126 p. (MIRA 14:4)
(Soil physics) (Soil fertility)

ASTAKHOV, S. N.

(DECEASED)

1963/3

c' 1962

PSYCHOLOGY

SEE ILC

SOVENKO, P., inzhener; ASTAKHOV, V., inzhener.

Productivity of the sack stitching machine has been doubled. Muk.
elev.prom.22 no.5:29 My '56. (MLRA 9:9)

1.Leningradskiy ordena Lenina mel'nichnyy kombinat imeni S.M.
Kireva.
(Bagging) (Sewing machines)

ASTAKHOV, V.; VOZNESSENSKIY, L.; VOLKOV, P.; YUDKIN, A.

Commodity production and the operation of the law of value under
socialism. Vop. ekon. no.4:109-122 Ap '58. (MIRA 11:5)
(Economics)

PISAREV, I.Yu., prof., red.; ASTAKHOV, V., red.; ULANOVA, L., tekhn.red.

[Methodological problems in the study of living standards of working people] Metodologicheskie voprosy izucheniia urovnia zhizni trudiashchikhsia. Pod red. I.IU.Pisareva. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1959. 257 p. (MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda.
(Cost and standard of living--Statistics)

BUYANOV, P.S.; KARAVAYEV, A.A.; KULAGIN, N.A.; ASTAKHOV, Y., red.;
VALOVOY, D., red.; LEPNIKOVA, Ye., red.; MOSKVIN, B.,
tekh.red.

[New stage in the development of the collective farm system]
Novyi etap v razvitii kolkhoznogo stroia. Moskva, Izd-vo
sotsial'no-ekon.lit-ry, 1959. 347 p. (MIRA 12:11)
(Collective farms)

KOZODOYEV, Ivan Iosifovich; ASTAKHOV, V., red.; KOROLEVA, A., mladshiy
red.; CHEPELEVA, O., tekhn.red.

[Theoretical study of land relations in socialist countries]
Zemel'nye otnosheniya v sotsialisticheskikh stranakh; ocherk
teorii. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1960. 351 p.
(MIRA 13:7)

(Land tenure)

(Rent (Economic theory))

AZAROVA, M.M., dotsent, kand.ekon.nauk; BAUTINA, N.V., dotsent, kand.ekon.
nauk; DOBRUSHIN, I.M., kand.ekon.nauk; KOZODOYEV, I.I., doktor
ekonom.nauk, red.; GARSIA, L., red.; ASTAKHOV, V., red.; PROKOP'YEV,
S., red.; CHEPELEVA, O., tekhn.red.

[Reader in political economy] Khrestomatia po politicheskoi
ekonomii. Moskva, Ind-vo sotsial'no-ekon.lit-ry, 1960. 759 p.
(MIRA 13:12)

(Economics)

ASTAKHOV, V. A.

PHASE X

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 699 - X

BOOK

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Author: ASTAKHOV, V. A.

Full Title: DESIGN AND ASSEMBLY OF CONTROL INSTALLATIONS AND
AUTOMATIC DEVICES IN THE PETROLEUM AND GAS-PROCESSING
INDUSTRY

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V. R., Semenov, B. S., Bakutkin, A. B., and Nikitin, V. A.

PURPOSE AND EVALUATION: This is a textbook approved by the
Administration of Institutions of Learning of the Ministry of
the Petroleum Industry for students of tekhnikums of control
and measuring instruments and for those specializing in control
installations and automation in the petroleum and gas-processing

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Proyektirovaniye i montazh ustanovok kontrolya
i avtomatika v nefte-gazopererabatyvayushchey promyshlennosti

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are analyzed and the indispensable technical equipment for this work is described.

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5. Capacity reservoirs and gas tanks; 6. Gas distribution stations and points; 7. Basic main conduits for gas, steam, water and air; 8. Choice and application of instruments and regulators for control and automation installations.

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induction into operation of the control and automation
installation, after assembly.

Page

Bibliography

No. of References: 65 Russian, 1938-1951

288

Facilities: None

6/6

ASTAKHOV, Y.A.

ANDERS, V.R.; PANTAYEV, N.F.; ASTAKHOV, Y.A., inzhener, retsenzent;
YERSHOV, P.R., vedushchiy redaktor; TROFIMOV, A.V., tekhnicheskii
redaktor

[Automatic regulation in petroleum refining processes] Avtomati-
cheskoe regulirovanie protsessov pererabotki nefli. Izd. 2-e, ispr.
i dop. Moskva, Gos. nauchno-tekhn. izd-vo neflianoi i gorno-toplivn
noi lit-ry, 1954. 260 p.
(Petroleum--Refining) (MLRA 7:10)
(Automatic control)

ASTAKHOV, V.A.; ANDERS, V.R.

Pneumatic regulators and their properties. Priborostroenie no.6:
18-20 Ja '56. (MLRA 9:8)
(Pneumatic machinery) (Automatic control)

S/196/62/000/014/036/046
E194/E155

AUTHORS: Astakhov, V.A., Smirnov, A.N., and Utkin, V.V.

TITLE: Automatic radioactive condensate-extractor type AKO-1
(AKO-1)

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika,
no.14, 1962, 32, abstract 14 G 194. (Novosti neft. i
gaz. tekhn. Gaz. delo, no.4, 1961, 27-30).

TEXT: The Laboratoriya avtomatiki i telemekhaniki (Laboratory
of Automatics and Telemechanics) of VNIIGAZ has developed an
automatic radioactive condensate-extractor type AKO-1. In 1960
the instrument passed laboratory and full-scale tests at gas fields
of the Krasnodar and Khar'kov sovnarkhozy. Equipment AKO-1 is a
two-position open-shut controller. The positioning action of the
controller makes it possible to estimate the amount of condensate
extracted from the number of operations. Co⁶⁰ with a half-life of
5.3 years serves as source of radiation. The activity of the source
is 0.02 microcurie, which is not dangerous for the staff. The
operating principles of the equipment are described.

Card 1/1 [Abstractor's note: Complete translation.]

ASTAKHOV, V.A.; ANDEFS, V.R.

Automation of gas distribution stations in long-distance
pipeline transportation systems. Gaz. prom. 6 no. 1:42-48
'61.

(MIRA 14:1)

(Gas, Natural—Pipelines)

ASTAKHOV, V.A.; UTKIN, V.V.; SMIRNOV, A.N.

Automatic, radioactive condensate draining device of type AKO-1.
Gaz.prom. 6 no.4:10-14 '61. (MIRA 14:3)
(Condensate oil wells--Equipment and supplies)
(Automatic control)

ZAREMBO, L.K., kand. fiz.-mat. nauk; KARFOV, A.K., inzh.; LEGOSTAYEV, P.Ye., kand. tekhn. nauk; GORODESKIY, Yu.N., kand. tekhn. nauk; KHRENOV, N.S., inzh.; KHODANOVICH, I.Ye., kand. tekhn. nauk; BRISKMAN, A.A., kand. tekhn. nauk; GORODETSKIY, V.I., inzh.; NIKITIN, A.A., inzh.; GILL', B.V., inzh.; KRAYZEL'MAN, S.M., inzh.; DZNAFAROV, E.D., inzh.; LUNEV, A.S., kand. tekhn. nauk; NIKITENKO, Ye.A., inzh.; YERSHOV, I.M., kand. tekhn. nauk; ZAYTSEV, Yu.A., inzh.; MAGAZANIK, Ya.M., inzh.; SHAROVATOV, L.P., inzh.; RABINOVICH, Z.Ya., inzh.; BIBISHEV, A.V., inzh.; ASTAKHOV, V.A., dots.; KOMYAGIN, A.F., kand. tekhn. nauk; ANDERS, V.R., inzh.; SERGOVANTSEV, V.T., kand. tekhn. nauk, dots.; UTKIN, V.V., inzh.; KUZNETSOV, P.L., inzh.; MAMAYEV, M.A., inzh.; SVYATITSKAYA, K.P., vod. red.; FEDOTOVA, I.G., tekhn. red.

[Handbook on the transportation of combustible gases] Spravochnik po transportu goriuchikh gazov. Moskva, Gostoptekhnizdat, 1962. 887 p. (MIRA 15:4)
(Gas, Natural--Transportation)

ANDERS, V.R.; ASTAKHOV, V.A.

Remaining deviation of the regulated parameter. Priicrostroenie
no.11:28 N '64.
(MIRA 18:1)

ASTAKHOV, V.A.; PODKOVKIN, M.F.; KULIKOV, Yu.A.

Characteristics of the automatic fluid outlet of gathering and distribution containers of low-temperature separators having a diethylene glycol inlet. Gaz. delo no.7:15-19 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

PIROGOV, Aleksey Gavrilovich; STERKIN, Yakov Izrailovich; ASTAKHOV, V.D.,
red.; DEMENT'YEV, V.A., red. izd-va; GOROKHOVA, S.S., tekhn. red.

[Commodity production, the law of value, and money under socialism]
Tovarnoe proizvodstvo, zakon stoimosti i den'gi pri sotsializme; v
pomoshch prepodavateliam srednikh spetsial'nykh uchebnykh zavedenii.
Moskva, Gos. izd-vo "Vyshaia shkola," 1960. 46 p. (MIRA 14:10)
(Economics)

KOROLEV, Sergey Arkad'yovich; ASTAKHOV, V.D., red.; NAUMOV, K.M.,
tekhn. red.

[Development of collective farm property at the present
stage of the building of communism in the U.S.S.R.] Razvitie
kolkhoznoi sobstvennosti na sovremennom etape kommunistiche-
skogo stroitel'stva v SSSR. Moskva, Izd-vo VPSH pri TsK KPSS,
1962. 103 p. (MIRA 15:11)

(Collective farms--Interfarm cooperation)
(Property)

BOR, Mikhail Zakharovich, doktor ekon. nauk; ASTAKHOV, V.D.,
red.; LISOV, V.Ye., red.

[Essays on the methodology and methods of planning] Ocherki
po metodologii i metodike planirovaniia. Moskva, Ekonomika
1964. 277 p. (MIRA 17:12)

YAKOVETS, Yuriy Vladimirovich; ASTAKHOV, V.D., red.; KUN'KIN,
B.I., red.

[Methodology of price determination in the mining industry]
Metodologiya tsenoobrazovaniya v gornodobyvalushchei pro-
myshlennosti. Moskva, Ekonomika, 1964. 214 p.

(MIRA 17:12)

1. Zaveduyushchiy kafedroy politicheskoy ekonomii Leningrad-
skogo gornogo instituta (for Yakovets).

ASTAKHOV, V.I. (Moskva); ZYKOV, D.D. (Moskva)

Analytical method of calculating the number of theoretical
plates in the distillation of binary mixtures. Izv. AN SSSR.
Otd. tekhn. nauk. Met. i topl. no.6:177-180 N-D '61. (MIRA 14:12)
(Distillation apparatus)

ASTAKHOV, V.I. (Moskva); ZYKOV, D.D. (Moskva)

Method of calculating the number of plates in the distillation
of multicomponent mixtures. Izv. AN SSSR. Otd. tekhn. nauk.
Met. i topl. no.1:188-191 Ja-F '62. (MIRA 15:2)
(Distillation apparatus)

ASTAKHOV, V.I. (Moskva); ZYKOV, D.D. (Moskva); KOLYVAGIN, A.A. (Moskva);
SEменова, I.M. (Moskva)

Calculating the distillation process on a computing machine. Izv.-
AN SSSR. Otd.tekh.nauk. Met.i topl. no.4:165-170 J1-Ag '62.
(MIRA 15:8)

(Distillation, Fractional) (Calculating machines)

BELENOV, Ye.A.; ASTAKHOV, V.I.

Certain features of the mass transfer equations. Khim. prom.
40 no.10:762-763 O '64. (MIRA 18:3)

ASTAKHOV, V.I.; ZYKOV, D.D.; KORTIKOV, V.S.

Number of units of transfer in the rectification of binary
mixtures. Khim. prom. 40 no.10:763-764 O '64. (MIRA 18:3)